

ATTACHMENT II

Activity Metric Disaggregation By Supported Functionality[†]

BILLING

Key Measures for the support of billing need not be subject to disaggregation by the product.

Key Measures for Billing Support

Error Correction Interval - Severity 1

Error Correction Interval - Severity ≥ 2

Data Pack Rejects

Speed of Answer by Support Center

Speed of Inquiry Resolution

NETWORK PERFORMANCE

Key Measures ideally should be available by product levels shown in the bold typeface in Attachment I. In addition, data collection and storage of these measures should accommodate display of performance, at the most discrete level specified in Attachment I, should investigation of potential discriminatory behavior become necessary. However, if such a level of detail proves infeasible, at least composite network results should be gathered and retained and, where appropriate, distinction made between voice (analog) services and higher speed data (digital) services

Key Measures for Network Quality Support²

Network Availability

Network Events

Dial Tone Delay³

Call Completion Rate³

Blockage Rate³

Post Dial Delay³

Errored Seconds⁴

Severely Errored Seconds⁴

[†] Ameritech Illinois (Schedules Attached to Exhibit 8.0) indicates a willingness to supply this measure.

ATTACHMENT II

Activity Metric Disaggregation By Supported Functionality¹

UNBUNDLED NETWORK ELEMENTS⁵

Product disaggregation is not relevant to Key Measures for the support of Unbundled Network Elements. Measures related to access to OSS functionality are outlined within Attachment III.

Key Measures for Unbundled Network Element Support

Accuracy of Routing (e.g., to CLEC Operator Services, CLEC Directory Service or VoiceMail Platforms)

† **Availability** (e.g., collocation denied, loop element unavailable, Signaling A or D link down)

Query Cycle Time (e.g., to SCPs, LIDB)

Update Cycle Time (e.g., time to establish CLEC record in Ameritech databases)

Speed of Answer by Support Center

Speed of Response to Inquiries

† **Speed of Operator Answer⁴**

† **Speed of Directory Assistance Answer⁴**

Notes:

1. Measurement of metrics must support statistically valid comparisons to demonstrate that the CLEC performance is not worse than that experienced by Ameritech Illinois. Items in bold should be reported on a regular basis.
2. Additional transmission quality measures relating to voice services such as noise, attenuation distortion, loss, balance, signal-to-noise, cross talk, circuit notch noise would also be desirable.
3. Voice/analog service measures
4. Digital service measures
5. Due to a lack of experience with the processes to obtain and support UNEs, the following measures must be considered "preliminary" and likely to require ongoing review and adjustment.
6. These metrics should be specific to the instances where Ameritech Illinois provides the OS/DA where the CLEC is not reselling retail services of Ameritech Illinois.

† Ameritech Illinois (Schedules Attached to Exhibit 8.0) indicates a willingness to supply this measure.

Attachment III

OUTLINE OF OSS INTERFACES MEASUREMENTS¹

The following material identifies measures relevant to the measurements at the operational support systems interfaces provided by Ameritech Illinois. Because AT&T has yet to complete end-to-end testing, AT&T is not in a position to fully assess the technical feasibility of capturing each of these measures. Nevertheless, the measures represent a reasonable starting point for determining nondiscriminatory access as they address timeliness, availability and accuracy. Each of these measures must attain performance levels not less than that experienced by Ameritech Illinois for access to the same OSS functionality.

PREORDERING TRANSACTION-BASED INTERFACE MEASURES

Interface Availability during business hours

Interface Availability outside business hours

Successful Query - Response Interval³

Query Failure Rates³

Speed of Answer by Support Center

Speed of Inquiry Closure

Attachment III

OUTLINE OF OSS INTERFACES MEASUREMENTS¹

ORDERING AND PROVISIONING TRANSACTION-BASED INTERFACE MEASURES

Interface Availability during business hours

Interface Availability outside business hours

Firm Order Confirmation Interval

Order Reject Rate

Supplement Reject Rate

Speed of Answer by Support Center

Speed of Inquiry Closure

**BATCH INTERFACES (PREORDERING, ORDERING, RECORDED USAGE, SERVICES
RESALE INVOICING, UNE INVOICING)**

Interval Between File Transfer Failures

Record Error Rate (% records failing to meet format standards)

Record Delivery Failure Rate (% records delivered after agreed interval)

Speed of Answer by Support Center

Speed of Inquiry Closure

Notes:

1. Measurement of metrics must support statistically valid comparisons to demonstrate that the CLEC performance is not worse than that experienced by Ameritech Illinois.
2. These measurements must be capable of being disaggregated by the primary preordering requests: Appointment Scheduling, Service Availability, Availability of ≤ 5 Telephone Numbers, Availability of > 5 Telephone Numbers, Availability of a Vanity Number(s), Supply of Customer Service Record(s).

SERVICE LIST
CASE NO. U-11104

AT&T Communications, Inc.
Joan Marsh
Cheryl Urbanski
227 W. Monroe - 13th Floor
Chicago, IL 60606

Continental Cable Vision
Timothy P. Collins
26500 Northwestern Highway - Suite 203
Southfield, MI 48076

Fischer, Franklin & Ford
George Hogg, Jr.
3500 Guardian Building
Detroit, MI 48226-3801

Foster, Swift, Collins & Smith, PC
Mark J. Burzych
313 S. Washington Square
Lansing, MI 48933

Fraser Trebilcock Davis & Foster, PC
David Marvin
Michael Ashton
1000 Michigan National Tower
Lansing, MI 48933

Hogan & Hartson
Linda Oliver
555 13th Street, NW
Washington, DC 20004

Clark Hill P.L.C.
Roderick Coy
Stewart Binke
200 N. Capitol Avenue - Suite 600
Lansing, MI 48933

Michigan Consumer Federation
Richard D. Gamber, Jr.
115 West Allegan - Suite 500
Lansing, MI 48933

SERVICE LIST
CASE NO. U-11104

Teleport Communications Group
Douglas Trabaris
233 S. Wacker Drive - Suite 200
Chicago, IL 60606

Sprint Communications Company LP
Richard Kowalewski
8140 Ward Parkway, 5-E
Kansas City, MO 64114

Norman Witte
115 W. Allegan Avenue - 10th Floor
Lansing, MI 48933-1712

US Department of Justice, Anti-trust Division
Katherine E. Brown
555 4th Street, NW
Washington, DC 20001

Dykema Gossett
Albert Ernst
860 Michigan National Tower
Lansing, MI 48933

Federal Communications Commission
Gayle Teicher
Policy Division - Common Carrier Bureau
1919 M Street, NW - Room 544
Washington, DC 20554

Craig Anderson
Michael Holmes
444 Michigan Avenue - Room 1750
Detroit, MI 48226

Loomis, Ewert, Parsley, Davis & Gotting, P.C
Harvey Messing
Sherri A. Wellman
232 S. Capitol Avenue - Suite 1000
Lansing, MI 48933

SERVICE LIST
CASE NO. U-11104

Orjiakor N. Isiogu
Assistant Attorney General
Special Litigation Division
630 Law Building
Lansing, MI 48909

Brooks Fiber Communications
Todd J. Stein
2855 Oak Industrial Drive, NE
Grand Rapids, MI 49506-1277

Telecommunications Resellers
Association
Andrew O. Isar
4312 92nd Avenue, NW
Gig Harbor, WA 98335

BRE Communications, Inc.
Richard C. Gould
4565 Wilson Avenue
Grandville, MI 49418

Fld 11/8/97

~~FE~~

*Supplemental
testimony*

**STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION**

Illinois Commerce Commission)	
On Its Own Motion)	
)	
Investigation Concerning Illinois)	No. 96-0404
Bell Telephone Company's)	
Compliance with Section 271(c) of)	
the Telecommunications Act of 1996)	

SUPPLEMENTAL TESTIMONY

OF

C. MICHAEL PFAU

ON BEHALF OF

AT&T COMMUNICATIONS OF ILLINOIS, INC.

AT&T EXHIBIT 3.1

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is C. Michael Pfau. My business address is AT&T Corp., 295 North
3 Maple Avenue, Basking Ridge, New Jersey 07920.

4
5 **Q. ARE YOU THE SAME C. MICHAEL PFAU WHO PREVIOUSLY SUBMITTED**
6 **DIRECT TESTIMONY IN THIS PROCEEDING?**

7 A. Yes, I am.

8
9 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?**

10 A. I will respond to the supplemental rebuttal testimony of Ameritech Illinois that
11 their operational interfaces are in a state of readiness to deliver
12 nondiscriminatory access to their operations support systems ("OSS"). I will
13 also address the additional testimony of Ameritech that outlined proposed
14 measurements and represented that those measures would be adequate for
15 determining whether nondiscriminatory access existed for services resale or for
16 unbundled network elements.

17
18 **Q. DOES AMERITECH ILLINOIS CONTEND THAT ITS OPERATIONS SUPPORT**
19 **SYSTEMS INTERFACES ARE OPERATIONAL?**

20 A. Yes, both Mr. Rogers (Ex 9.0, p. 4) and Mr. Mickens (Ex. 8.0, p. 23) claim
21 that, with some "minor exceptions," their operations support systems interfaces
22 are operational.

23
24 **Q. DO YOU AGREE THAT AMERITECH'S OPERATIONS SUPPORT SYSTEMS**
25 **INTERFACES ARE OPERATIONAL?**

1 A. No. For something to be operational, it must be capable of being used. Despite
2 the claims that its interfaces are operational, Ameritech admits that no CLEC is
3 using the offered ordering and maintenance interface for transacting business
4 (Ex. 9.0, pp. 10,12). Even in the most recent filing by Mr. Rogers, he states
5 that Ameritech's proposed interfaces for a number of pre-ordering functions,
6 including access to customer service records, access to telephone number
7 selection and assignment, due date selection and access to information
8 regarding changes in service order status, are still "under development" and are
9 only "scheduled for commercial deployment" in December 1996 (Ex. 9.0, pp. 5,
10 15, 26). Mr. Rogers also states that the interfaces required for the provisioning
11 of resold service is still not complete (Ex. 9.0, p. 11). Even if Ameritech Illinois
12 announces that it has successfully deployed these electronic interfaces for
13 access to these operations support systems, their operability, and particularly
14 their ability to operate in a nondiscriminatory manner, has not been
15 demonstrated. For the reasons I will describe later, Ameritech Illinois does not
16 have a measurement plan adequate to demonstrate the delivery of
17 nondiscriminatory access to its operations support systems, and there is
18 certainly no evidence that the OSS access promised by Ameritech will in fact be
19 nondiscriminatory in the marketplace.

20
21 **Q. IS THE LACK OF A SUFFICIENT MEASUREMENT PLAN THE ONLY ASPECT**
22 **THAT CAUSES YOU TO CONCLUDE THAT THE OPERATIONAL SUPPORT**
23 **SYSTEMS ACCESS IS NOT FULLY OPERATIONAL?**

24 A. No. Although Ameritech states that its interfaces are, or will be, operational,
25 and many of its interfaces seem technically capable of transmitting and receiving
26 bits and bytes in a particular format and syntax, I am not at all confident that

1 nondiscriminatory access to OSS functionality will exist, or that CLECs will be
2 able to fully utilize such functionality. AT&T is the only CLEC Ameritech Illinois
3 identifies as having engaged in any form of testing of the operational support
4 systems access (Ex. 9.0, p. 15) and the experience of AT&T cannot be relied
5 upon as a demonstration that nondiscriminatory access to OSS functionality is a
6 reality. Ameritech must provide nondiscriminatory access to its operations
7 support systems functionality, and that nondiscriminatory access necessarily
8 includes an obligation to permit the use of the functionality.

9
10 **Q. CAN YOU PROVIDE AN EXAMPLE WHERE AMERITECH ILLINOIS' INTERFACE**
11 **IS CATEGORIZED AS OPERATIONAL, BUT THE OSS FUNCTIONALITY IS NOT**
12 **COMPLETELY ACCESSIBLE?**

13 **A.** Yes, I alluded to such a situation in my prior testimony. Ameritech Illinois
14 accepts the transmission of supplemental orders over its EDI interface, an
15 interface that they claim is operational (Ex. 8.0, p. 6). AT&T cannot efficiently
16 send supplemental orders to Ameritech Illinois even though the supplements
17 issued by AT&T comply with the EDI national standards for ordering, a standard
18 with which Ameritech claims to be consistent (Ex. 8.0, p. 9). Ameritech claims
19 that the problem lies with AT&T because "Ameritech Illinois' use of the EDI 860
20 transaction is consistent with its use in other industries" (Ex. 8.0, p. 10). I
21 cannot attest to the use of the 860 transaction in other industries, but within
22 the telecommunications industry it is AT&T's experience that NYNEX,
23 BellSouth, US WEST, Southwestern Bell, Bell Atlantic, SNET, GTE, and Sprint
24 have all accepted the treatment of the 860 transaction which AT&T requested
25 of Ameritech Illinois. The result of Ameritech Illinois' position, from the
26 viewpoint of AT&T, is that the ordering interface is not yet fully operational and

1 that nondiscriminatory access to that OSS functionality is not being delivered by
2 Ameritech. More importantly, Ameritech's refusal to accept a complete refresh
3 of the original order from AT&T has caused it to delay full scale market entry in
4 Illinois by 6 months and AT&T will incur an estimated \$1.3 million additional
5 expense associated with its system development. Until AT&T has fully tested
6 all interfaces, or until other CLECs have engaged in comprehensive intercompany
7 testing to assure promised functionality is actually accessible, then Ameritech
8 Illinois should not be considered to have met its burden of proof that it can and
9 does provide nondiscriminatory access to its OSS functionality.

10
11 **Q. WHAT IS REQUIRED IN ORDER TO DEMONSTRATE THAT**
12 **NONDISCRIMINATORY ACCESS IS AVAILABLE AND BEING DELIVERED TO**
13 **POTENTIAL COMPETITIVE LOCAL EXCHANGE COMPANIES?**

14 **A. Ameritech Illinois must show, through measured performance experience of a**
15 **meaningful set of CLECs, that nondiscriminatory access is being delivered for**
16 **all operations support systems related to pre-ordering, ordering, provisioning,**
17 **maintenance and repair, and all aspects of billing. The FCC specifically**
18 **encouraged state commissions to adopt reporting requirements related to**
19 **assurance of nondiscriminatory access. (§ 311). This area of reporting and**
20 **verification of nondiscriminatory access will be an area where the Illinois**
21 **Commission can provide national leadership as it has done in the past in other**
22 **areas related to cost based pricing and interconnection.**

23
24 Without a doubt, appropriately defined and sufficiently robust sets of
25 measurements are crucial to demonstrating that nondiscriminatory access to
26 each OSS functionality is indeed actually being delivered and that such

1 nondiscriminatory access continues to be delivered on an on-going basis. Lack
2 of a mechanism to monitor and, if necessary, ensure prompt re-establishment of
3 nondiscriminatory access to OSS functionality will have a chilling effect on the
4 emergence of meaningful competition in the provision of telephone exchange
5 services. Nondiscriminatory access to OSS functionality, and to unbundled
6 network elements ("UNEs") in general, cannot merely be promised; it must be
7 shown to exist across-the-board and it must be monitored going forward to
8 assure it continues to be provided.

9
10 **Q. HOW CAN THE DELIVERY OF NONDISCRIMINATORY ACCESS TO OSS**
11 **FUNCTIONALITY BE VERIFIED AND MONITORED?.**

12 **A.** As Ameritech suggests, a measurement plan is needed both to accomplish the
13 initial validation and to provide on-going monitoring. An acceptable
14 measurement plan must embody at least four characteristics: (1) the plan must
15 support statistically valid comparisons of CLEC experience to the experience of
16 Ameritech's local service operations; (2) the plan must account for potential
17 performance variations due to differences in service and activity mix; (3) the
18 plan must monitor performance not only at the service level, but at the interface
19 level as well; and (4) the plan must be implemented and be producing results
20 which demonstrate that nondiscriminatory access to OSS functionality is,
21 indeed, being delivered across all interfaces and a broad range of resold services
22 and unbundled network elements. Although Ameritech has made some
23 constructive proposals for a conceptual measurement plan, more work is
24 necessary.

25

1 Q. YOU SAY STATISTICALLY VALID COMPARISONS ARE REQUIRED. WHAT
2 ADDITIONAL WORK OR CLARIFICATION IS REQUIRED WITH RESPECT TO
3 SUPPORTING STATISTICALLY VALID COMPARISONS OF PERFORMANCE?

4 A. As a first step, Ameritech should demonstrate that the measurement plan will
5 gather and retain data in a manner that permits meaningful tests for statistically
6 significant differences in performance. The measurement plan should permit
7 each measure, if so desired, to be tested and a determination made, at a
8 generally acceptable and agreed upon levels of statistical significance, that the
9 CLEC results are no worse than that experienced by Ameritech Illinois' own
10 retail local service operations or those of any of its affiliates. The statistical test
11 which determines a "no worse than" (rather than a test that only states you
12 cannot conclude a difference exists) is important so that Ameritech Illinois can
13 positively demonstrate the absence of discriminatory access to OSS
14 functionality.

15

16 The ability to test performance and determine the absence of discrimination is
17 probably the single most important purpose of the measurement plan.

18 Unfortunately, Ameritech has offered no testimony regarding the statistical
19 tests, if any, that it plans to employ to demonstrate that absence of
20 discrimination.

21

22 Q. WHY DO YOU SAY THAT ACCOUNTING FOR SERVICE MIX DIFFERENCES IS
23 IMPORTANT IN CONSTRUCTION OF THE MEASUREMENT PLAN?

24 A. When generalized measures are utilized, care must be taken to assure that they
25 are sufficiently discrete to permit meaningful comparisons to be made. When I
26 say discrete, I mean that it must be possible to group and compare performance

ICC DOCKET NO. 96-0404
SUPPLEMENTAL TESTIMONY OF C. MICHAEL PFAU

1 measures along dimensions that reflect common attributes likely to be correlated
2 with expected differences in performance. For example, installation intervals for
3 complex business orders are likely to be substantially longer than the installation
4 interval for single line residence basic local service. Therefore, a due date
5 performance measure that combines the business and residence categories into
6 a single reported result could be misleading. The example below illustrates this
7 point:

8

ICC DOCKET NO. 96-0404
SUPPLEMENTAL TESTIMONY OF C. MICHAEL PFAU

1

	installation interval (days)	% orders	wtd component (days)
Company 1			
res single line basic local service	4	15%	0.60
complex bus	15	85%	12.75
average installation interval			13.35
Company 2			
res single line basic local service	7	60%	4.20
complex bus	20	40%	8.00
average installation interval			12.20

2

3

4

5

6

7

8

9

10

11

12

13

As can be seen from this preceding example, if only the average result across all services is compared, one would falsely conclude that Company 2's performance was superior to that of Company 1. In reality, however, Company 2 has worse performance for both categories of service. The difference in the average result is due to the differing product mix. It is safe to assume, at least early in the development of competition, that CLECs and Ameritech Illinois will have significantly differing product mixes. Thus, every effort should be made to disaggregate product level measures so that meaningful comparisons can be made.

14

15

16

17

AT&T proposes that the level of product detail outlined in Attachment I of my testimony should be established as the minimally acceptable level of product disaggregation for the Ameritech Illinois measurement plan. In addition, because new products will likely be introduced and others will

1 decline and be withdrawn, the product detail should be periodically reviewed,
2 probably annually, to assure that measures reported are meaningful.
3 Reporting of measures at a lesser level of product detail would be acceptable,
4 provided that the underlying data is maintained at a very granular service
5 detail and, upon request and subject to the appropriate proprietary
6 protection, a CLEC could sponsor an independent audit of metrics at the very
7 discrete service level detail.

8

9 **Q. HAS THE PROPOSED PLAN OF AMERITECH ILLINOIS ADDRESSED THIS**
10 **ISSUE OF PRODUCT MIX VARIATION?**

11 A. It is difficult to determine from the limited data supplied. The prototype
12 reports reflect only a very limited level of product disaggregation -- POTS,
13 subrate, and high capacity services. Certainly these levels of product detail
14 are still too aggregated. - Due to the lack of detail in the filed information, I
15 can only assume that Ameritech attempted to partially address the impacts
16 of product mix that I discussed earlier by comparing the metric to a "target"
17 or an "agreed upon" level. Such an approach may be workable for internal
18 purposes of a single company. When comparisons between companies must
19 be made for the purposes of determining nondiscrimination, however, that
20 approach is inadequate.

21

22 **Q. WILL YOU EXPLAIN WHY SUCH MEASURES ARE INADEQUATE?**

23 A. The comparison of CLEC performance to a target is useless, for purposes of
24 determining nondiscrimination, unless both the CLEC and ILEC performance
25 are reported in comparison to the same target level. Even making a
26 comparison of both CLEC performance and Ameritech's performance to an

ICC DOCKET NO. 96-0404
SUPPLEMENTAL TESTIMONY OF C. MICHAEL PFAU

identical target level and then reporting only the percentage not meeting the target provides very little information of value for purposes of determining nondiscrimination. Such comparisons may even be misleading, unless the entities being compared have identical, or at least very similar, deviations in their experiences. The following example demonstrates this point, again using illustrative data:

Order #	Installation Performance by Order (days)	
	Company 1	Company 2
1	3	3
2	4	3
3	4	3
4	5	10
5	5	10
6	5	10
7	5	10
8	3	3
9	3	3
10	3	3
average	4	5.8
target	3	3
% exceeding target	60%	40%

In this preceding example, use of the "% exceeding target" figure would falsely lead an observer to the conclusion that Company 2 is achieving substantially better performance (in the case of this example, exceeding target is poorer performance). In fact, the performance for Company 2 when it is poor, is much, much worse than Company 1 and is never better than the best performance of Company 1. The wide variation in performance causes

1 this situation and is the Achilles Heel of the use of "% exceeding target"
2 measurement.

3
4 **Q. DOES THIS EXAMPLE REFLECT A SITUATION THAT IS ACTUALLY LIKELY**
5 **TO OCCUR?**

6 A. Yes. It is reasonable to expect that the experience of CLECs will be much more
7 variable, because of the newness of the support mechanisms, than that of
8 Ameritech Illinois. Therefore, measures similar to "% exceeding target" and "%
9 exceeding agreed upon intervals" should be avoided in favor of actual measures
10 of performance that are appropriately discrete and that include the actual mean
11 performance along with a statistical measure of variation around the resulting
12 mean for the measure

13
14 **Q. WHY DO YOU SAY THAT ACTIVITY MIX MUST BE ACCOUNTED FOR WITHIN**
15 **AMERITECH ILLINOIS' MEASUREMENT PLAN?**

16 A. The activity mix consideration is similar, in many respects, to the service mix
17 issue. Many types of activities may be involved within the process of
18 successfully completing a single business task. As a simple example, service
19 repair may in some cases involve a premises visit, while in other cases remotely
20 managed restoration is possible. Whether or not a premises visit is required will
21 impact upon the expected (and actual) restoration interval, regardless of the
22 service being supported. The example below, illustrates how the frequency with
23 which a premises visit occurs influences an aggregated measure for the
24 restoration interval:

25

ICC DOCKET NO. 96-0404
SUPPLEMENTAL TESTIMONY OF C. MICHAEL PFAU

	restoratio interval (hours)	% tickets	wtd component (hours)
Company 1			
premises visits required	8	40%	3.20
no premises visit	3	60%	1.80
average restoration interval			5.00
Company 2			
premises visits required	8	60%	4.80
no premises visit	3	40%	1.20
average restoration interval			6.00

1
2 As this preceding illustration demonstrates, even where two companies are
3 experiencing the same performance at the activity level, the average
4 performance can look very different due to variations in the mix of key
5 activities. For this reason, Ameritech Illinois should provide disaggregated
6 performance measures when differences in the underlying mix of activities
7 could reasonably be expected to influence the aggregate measures. Areas
8 where this can be expected to occur are outlined in Attachment II to this
9 testimony. With the exception of billing and network related activity
10 measures, which Ameritech Illinois does not address at all, the "key
11 measures" shown on Attachment II tend to be in fairly close alignment with
12 those proposed by Ameritech Illinois. Ameritech Illinois does not discuss
13 whether or not additional data required to disaggregate those key measures
14 according to dimensions shown in Attachment II will be captured and stored
15 so that meaningful comparisons of results can be made.
16

1 **Q. DOES THE SAME PROBLEM OF USING “% EXCEEDING TARGET” AND**
2 **SIMILAR MEASURES, WHICH YOU DISCUSSED FOR SERVICE MIX, ALSO**
3 **APPLY TO THE ACTIVITY MIX?**

4 **A. Yes, it does. Again, actual measures of the mean performance are**
5 **preferable, combined with an appropriate measure of statistical variation,**
6 **such as a 95% confidence interval for the mean of the measurement**
7 **reported.**

8

9 **Q. WHY DO YOU SAY THAT MEASURES MUST BE ESTABLISHED AT THE**
10 **UNBUNDLED NETWORK ELEMENT LEVEL AS WELL AS AT THE SERVICE**
11 **LEVEL?**

12 **A. As the FCC stated in its Order of August 8, 1996 (§ 525) delivery of**
13 **nondiscriminatory OSS access is a requirement not only for services resale**
14 **but also for unbundled network elements. As I mentioned earlier in my**
15 **testimony, the FCC is looking to the state commissions to establish**
16 **measurements which demonstrate that nondiscriminatory access is and**
17 **continues to be delivered (§ 311). Service level measures, if properly**
18 **defined, may help detect discriminatory behavior relating to the support of**
19 **services resale and, to a lesser extent, the use of unbundled network**
20 **elements in combination. However, detecting discriminatory conditions and**
21 **assuring the absence of discrimination at the network element level requires**
22 **more focused measures. These measurements will typically be very limited**
23 **in scope and will not be service oriented but rather will be oriented to access**
24 **delivered to specific unbundled network elements, such as access to OSS**
25 **functionality.**

26

1 **Q. ARE THE MEASURES PROPOSED BY AMERITECH FOR OPERATIONS**
2 **SUPPORT SYSTEMS ADEQUATE TO DETERMINE WHETHER**
3 **NONDISCRIMINATORY ACCESS IS BEING PROVIDED TO COMPETITORS?**

4 **A. No. Ameritech has provided very little detail regarding its proposed**
5 **performance measures for access to operations support systems. Only three**
6 **measures are listed for the OSS unbundled element -- platform availability,**
7 **transaction accuracy, and business function completion window -- and only a**
8 **generic heading of operational support systems is shown. While the**
9 **proposed measures sound like they address the tests that I proposed for**
10 **nondiscriminatory access in my earlier direct testimony -- equivalent**
11 **availability, accuracy and timeliness -- the descriptive material that Ameritech**
12 **has placed in the record is far too limited to draw any conclusions regarding**
13 **the effectiveness of the proposed measures.**

14
15 **Q. WHAT ARE SOME OF THOSE INADEQUACIES?**

16 **A. First, it is not clear that Ameritech intends to monitor and report results for**
17 **each interface. As Mr. Mickens notes in his testimony, there are no less**
18 **than nine different interfaces [Ex. 8.0, p. 6]. Each supports a very different**
19 **but critical process. It makes no sense to allow Ameritech to construct a set**
20 **of measures where good availability performance on the part of, for example,**
21 **a billing interface could mask the very poor performance on the part of**
22 **another interface, such as maintenance and repair.**

23
24 **Perhaps Ameritech Illinois intends to provide reported measurement for each**
25 **of the nine interfaces. However, I cannot draw conclusion that such a**
26 **commitment exists based on the testimony that has been offered to date.**

1 For example, in defining the calculation for platform availability, the reference
2 is to interfaces which indicates to me an intent to combine all interfaces into
3 a single reported measure [Ex. 8.0, Schedule 5, Section 3, p. 1]. The
4 Commission should assure itself that Ameritech Illinois will provide separately
5 reported comparative measures for each of the nine interfaces that Mr.
6 Mickens identified -- pre-ordering transactional interface (EDI), pre-ordering
7 batch interface (file transfer), ordering transactional interface (EDI), ordering
8 batch interface (ASR), provisioning, maintenance and repair, usage billing
9 information (EMR), services resale billing information (AEBS), and UNE billing
10 information (CABS).

11

12 **Q. ARE THERE OTHER ASPECTS OF THE PROPOSED OPERATIONS SUPPORT**
13 **SYSTEMS MEASURES THAT MUST BE ADDRESSED?**

14 **A. Yes. Beyond measuring and reporting results for each interface, all the**
15 **measures need to be better defined and further refined. While I can**
16 **understand Ameritech Illinois' desire to quickly move through these**
17 **proceedings, the establishment of a meaningful measurement plan is an**
18 **obligation that falls upon this Commission and such a measurement plan is to**
19 **critical safeguarding the development of competition. The measures**
20 **ultimately adopted by this Commission will represent the only on-going**
21 **means to promptly assess whether the requirement of nondiscriminatory**
22 **access is being met. It would be imprudent to simply accept, on faith,**
23 **Ameritech Illinois' unilateral proposal of such key measures and their**
24 **definition.**

25

1 **Q. CAN YOU GIVE SOME EXAMPLES ILLUSTRATING WHAT MUST BE**
2 **ADDRESSED WITH RESPECT TO THE PLATFORM AVAILABILITY**
3 **MEASURE?**

4 **A. First, the definition must be revised. The proposed platform availability**
5 **measurement is calculated by dividing the "time the OSS interfaces are not**
6 **available by the total time available" [Ex. 8.0, Schedule 5, Section 3, p. 1]. I**
7 **assume that the definition of "available" is that the interface under**
8 **consideration is incapable of processing transactions. Ameritech Illinois did**
9 **not provide that critical definition. Given that understanding, the platform**
10 **availability measure needs to be modified to reflect at least a differentiation**
11 **of business hours (e.g., 8:00AM to 5:00PM) versus non-business hours**
12 **performance. For example, if the preordering interface is unavailable for**
13 **three hours between 8:00 AM and 5:00 PM on a business day, that would**
14 **have much greater competitive market impact (i.e., customer dissatisfaction)**
15 **than if the same interface were to be unavailable for the same amount of**
16 **time from 2:00AM to 6:00AM on a Sunday. Ameritech should state**
17 **availability measures separately for "within normal business hours" and**
18 **"outside normal business hours" for each interface in order to address the**
19 **situation I just described.**

20
21 **In addition, while a comparison to Ameritech Illinois' own experience is**
22 **proposed, it is not at all clear how this will be accomplished for the platform**
23 **availability. It is not my understanding that Ameritech Illinois retail exchange**
24 **service agents or processes will use any interface in common with the CLEC.**
25 **Ameritech, therefore, needs to clarify how the availability measure will be**